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| 10/589,400 | 08/14/2006 | Tsuyoshi Kasaura | 1190-0634PUS1 | 7042 |
| 2292 7590 12/11/2008 BIRCH STEWART KOLASCH & BIRCH PO BOX 747 FALLS CHURCH, VA 22040-0747 | | | | |
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary

Application No.

10/589,400

Applicant(s)

KASAURA ET AL.

Examiner

AMARE TABOR

Art Unit

2439

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 November 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/CDC)
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date: _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____
- Paper No(s)/Mail Date: _____

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 11/14/2008 has been entered.
2. All claims except Claims 10 and 14 are amended.
3. Claims 1-15 are pending.

Response to Arguments

4. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Belfaz et al. (US 2003/0149874 A1 – "Belfaz") in view of Puhl et al. (US 6,223,291 B1 – "Puhl")

As per Claim 1, Belfaz teaches,

A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to

participate in a wireless network formed by a plurality of data sending/receiving devices [see abstract; FIG.2; and for example, par.0002 and 0007] each having a digital certificate [see **PK1, PK2** in FIG.5] that certifies authority to participate in the wireless network [see **340** in FIG.3, FIGS.5 and 9-12]; the data sending/receiving device comprising: a first communication section which performs wireless communication in the wireless network [see **314 & 324** in FIG.3; and **MAIN WIRELESS LINK INTERFACE 434** in FIG.4]; a second communication section, to which the new data sending/receiving device can be connected by a wired connection means [see **312 & 322** in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4]; wherein when the new data sending/receiving device is connected to the second communication section, the control section judges whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network, in accordance with device type information of the new data sending/receiving device received via the second communication section from the new data sending/receiving device [see FIG.3; and for example, par.0033-0036], and if the new data sending/receiving device is judged as a device having the communication means that can communicate in the wireless network [see FIG.5 – where at steps **130-140 PK1/PK2** are sent using **MAIN WIRELESS LINK 434** in FIG.4].

Puhl discloses and a control section which performs a process of issuing the digital certificate for the new data sending/receiving device [see **AUTHENTICATION PROGRAM 426** and **AUTHENTICATOR 428** in FIG.4] and sends the created digital certificate via the second communication section to the new data sending/receiving device through the wired connection means [see **312 & 322** in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4]. On the other hand **Puhl** discloses control section creates the digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received via the second communication section from the new data sending/receiving device through the wired connection means [see FIGS.1-3 – where the wireless device's unique identifier is used in digital signature and sent]. Therefore, it would have been obvious to a person having ordinary skill in the art, at the time of Applicants' invention was made, to modify the system of **Belfaz** by incorporating the teaching of **Puhl** and

arrive at the above claimed feature of the invention. The modification is beneficial to secure wireless electronic systems [see at least abstract of **Puhl**].

As per Claim 4, Belfaz-Puhl combination teaches,

A data sending/receiving device for issuing a digital certificate to a new data sending/receiving device, when the data sending/receiving device causes the new data sending/receiving device to participate in a wireless network formed by a plurality of data sending/receiving devices including said data sending/receiving device and another data sending/receiving device each having a digital certificate that certifies authority to participate in the wireless network; the data sending/receiving device comprising: a first communication section which performs wireless communication in the wireless network [see **314 & 324** in FIG.3; and **MAIN WIRELESS LINK INTERFACE 434** in FIG.4 of **Belfaz**]; and a control section which performs a process of issuing the digital certificate [see **AUTHENTICATION PROGRAM 426** and **AUTHENTICATOR 428** in FIG.4 of **Belfaz**]; wherein when the new data sending/receiving device is connected to a second communication section of said another data sending/receiving device by a wired connection means [see **312 & 322** in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4 of **Belfaz**], the control section of said data sending/receiving device judges whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network [see **314 & 324** in FIG.3; and **MAIN WIRELESS LINK INTERFACE 434** in FIG.4 of **Belfaz**], in accordance with device type information of the new data sending/receiving device received via a second communication section of said another data sending/receiving device through the wired connection means from the new data sending/receiving device [see FIG.3; and for example, par.0033-0036 of **Belfaz**]; and if the new data sending/receiving device is judged as a device having a communication means that can communicate in the wireless network [see FIG.5 – where at steps **130-140** PK1/PK2 are sent using **MAIN WIRELESS LINK 434** in FIG.4 of **Belfaz**], the control section of said data sending/receiving device creates a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device, the device identifier being received through the wired connection means via said another data sending/receiving device to which the

new data sending/receiving device is connected from the new data sending/receiving device [see abstract and FIGS.1-3 of Puhl], and controls to send the created digital certificate through the wired connection means via said another data sending/receiving device to which the new data sending/receiving device is connected [see **AUTHENTICATION PROGRAM 426** and **AUTHENTICATOR 428** and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4 of Belfaz].

As per Claim 7, Belfaz-Puhl combination teaches,

A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a wireless network formed by a plurality of data sending/receiving devices each having a digital certificate that certifies authority to participate in the wireless network, the method comprising the steps of: connecting the new data sending/receiving device through a wired connection means to a certain data sending/receiving device participating in the wireless network [see **312 & 322** in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4 of Belfaz]; judging by a certain data sending/receiving device, whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network in accordance with device type information of the new data sending/receiving device received through the wired connection means from the new data sending/receiving device [see **314 & 324** in FIG.3; and **MAIN WIRELESS LINK INTERFACE 434** in FIG.4 of Belfaz]; and if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network [see FIG.5 – where at steps **130-140 PK1/PK2** are sent using **MAIN WIRELESS LINK 434** in FIG.4 of Belfaz], creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received from the new data sending/receiving device through the wired connection means and sending the created digital certificate to the new data sending/receiving device through the wired connection means, by the certain data sending/receiving device [see abstract and FIGS.1-3 of Puhl].

As per Claim 11, Belfaz-Puhl combination teaches,

A digital certificate issuing method for issuing a digital certificate to a new data sending/receiving device when the new data sending/receiving device participates in a wireless network formed by a plurality of data sending/receiving devices including at least a first data sending/receiving device and a second data sending/receiving device each having a digital certificate that certifies authority to participate in the wireless network, the method comprising the steps of: connecting the new data sending/receiving device through a wired connection means to the second data sending/receiving device participating in the wireless network [see 312 & 322 in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4 of **Belfaz**]; judging, by the first data sending/receiving device forming the wireless network, whether or not the new data sending/receiving device is a device having a communication means that can communicate in the wireless network in accordance with device type information of the new data sending/receiving device [see FIG.3; and for example, par.0033-0036 of **Belfaz**] received through the wired connection means and the second data sending/receiving device from the new data sending/receiving device [see 312 & 322 in FIG.3; and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4]; and if the first data sending/receiving device which is other than the second data sending/receiving device to which the new data sending/receiving device is connected through the wired connection means, judges that the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network [see 314 & 324 in FIG.3; and **MAIN WIRELESS LINK INTERFACE 434** in FIG.4 of **Belfaz**], creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received via the second data sending/receiving device, to which the new data sending/receiving device is connected through the wired connection means, from the new data sending/receiving device and sending the created digital certificate via the second data sending/receiving device, to which the new data sending/receiving device is connected through the wired connection means, to the new data sending/receiving device, by the first data sending/receiving device [see abstract and FIGS.1-3 of **Puhl**].

As per Claim 15, Belfaz-Puhl combination teaches,

A computer readable storage medium having thereon computer executable program for performing a process of issuing the digital certificate through a wired connection means creating a wireless network, the computer program when executed causes a processor to execute steps of: judging by a certain data sending/receiving device that is one of the data sending/receiving devices forming the wireless network and is connected through a wired connection means to the new data sending/receiving device, whether or not the new data sending/receiving device is a device having a communication means that communicates in the wireless network in accordance with device type information having the new data sending/receiving device received through the wired connection means from the new data sending/receiving device [see FIG.3; and for example, par.0033-0036 of **Belfaz**]; and if the new data sending/receiving device is judged as being a device having a communication means that can communicate in the wireless network, creating a digital certificate for the new data sending/receiving device by using a device identifier specific to the new data sending/receiving device received through the wired connection means from the new data sending/receiving device and sending the created digital certificate through the wired connection means to the new data sending/receiving device, by the certain data sending/receiving device [see **AUTHENTICATION PROGRAM 426** and **AUTHENTICATOR 428** and **LOCATION-LIMITED CHANNEL INTERFACE 432** in FIG.4 of **Belfaz**. See also abstract and FIGS.1-3 of **Puhl**].

As per Claim 2, Belfaz-Puhl combination teaches,
wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network, if the new data sending/receiving device already has a digital certificate, the control section does not issue a new digital certificate [see **PK2** in FIG.5 of **Belfaz**].

Claims 5, 8 and 12 are rejected for the same reasons applied to the rejection of Claim 2.

As per Claim 3, Belfaz-Puhl combination teaches,

wherein even when the new data sending/receiving device is judged as being the device having the communication means which can participate in the wireless network and the new data sending/receiving device already has a digital certificate [see **PK2** in FIG.5 of **Belfaz**], if the digital certificate that is already held in the new data sending/receiving device is for another network different from the wireless network [see **340** in FIG.3 and **MAIN WIRELESS LINK RX/TX 444** in FIG.4; and for example, par.0037-0041 of **Belfaz**], the control section creates a digital certificate for the new data sending/receiving device by using the device identifier and sends the created digital certificate through said another sending/receiving device and the wired connection means to the new data sending/receiving device [see abstract and FIGS. 1-3 of **Puhl**].

Claims 6, 9 and 13 are rejected for the same reasons applied to the rejection of Claim 3.

As per Claim 10, **Belfaz-Puhl** combination teaches,

wherein the new data sending/receiving device verifies validity of the received digital certificate [see **AUTHENTICATION PROGRAM 424** and **AUTHENTICATOR 428** in FIG.4], if it is confirmed that the validity exists, the new data sending/receiving device notifies the data sending/receiving device which has issued the digital certificate that the digital certificate has been accepted [see steps **S150-160** in FIG.5 of **Belfaz**], and if it is not confirmed that the validity exists, the new data sending/receiving device requests the data sending/receiving device which has issued the digital certificate to issue a digital certificate again [see **RESUME COMMUNICATION S170** in FIG.5 of **Belfaz**].

Claim 14 is rejected for the same reasons applied to the rejection of Claim 10.

CONTACT INFORMATION

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AMARE TABOR whose telephone number is (571)270-3155. The examiner can normally be reached on Mon-Fri 8:00a.m. to 5:00p.m., EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kambiz Zand can be reached on (571) 272-3811. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Amare Tabor
(AU 2439)

/Kambiz Zand/
Supervisory Patent Examiner, Art Unit 2434